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EXHIBIT 2

Innovative by Nature

SPEZYME® ETHYL

High Performance Alpha-Amylase for Fuel Ethanol Processes

Product Information

DESCRIPTION

SPEZYME® ETHYL enzyme contains a thermostable starch-hydrolyzing α-amylase with excellent stability at low pH that is derived from a genetically modified strain of *Geobacillus stearothermophilus*. The endo-amylase in SPEZYME® ETHYL enzyme randomly hydrolyzes α-1,4-glucosidic bonds to quickly reduce the viscosity of gelatinized starch or grain mash, producing soluble dextrins and saccharides under a variety of process conditions.

TYPICAL CHARACTERISTICS

Activity:	6,700 - 7,300 AAU/g
Appearance:	Clear brown liquid
pH:	5.0 - 6.5
Specific gravity:	1.18 - 1.22 g/ml

Unit Definition

The activity of SPEZYME® ETHYL is expressed in Alpha Amylase Units (AAU). Enzyme activity is determined by the rate of starch hydrolysis, as reflected in the rate of decrease in iodine-staining capacity. One AAU unit of bacterial α-amylase activity is the amount of enzyme required to hydrolyze 10 mg of starch per minute under specified conditions. A detailed assay method is available upon request.

PERFORMANCE BENEFITS

SPEZYME® ETHYL provides the following benefits to (fuel) ethanol producers:

- Quick viscosity breakdown allowing for improved mash handling and higher solids throughput
- Excellent performance with no added calcium under most conditions
- Stability at lower pH
- Flexibility in process control

APPLICATION RECOMMENDATIONS

SPEZYME® ETHYL enzyme is a robust product designed for processes that require thermostable α-amylase.

RECOMMENDED CONDITIONS	
pH	5.4 - 5.8
Dry Substance	25 - 38% w/w
Slurry Treatment (Dry Mill)	Warm: 60 - 68°C
	Hot: 83 - 89°C Can also be used for extended time periods (1 6 hours) at above temperatures with no jet or high temperature liquefaction system
Liquefaction	Cook: 105 - 110°C for 5 - 7 minutes
	Conversion 85°C for 90 - 120 minutes (Wet Mill) 83 - 89°C for 90 - 120 minutes (Dry Mill)
SPEZYME® ETHYL Dosage	Please contact your Genencor Technical Representative for recommendations specific to your liquefaction process

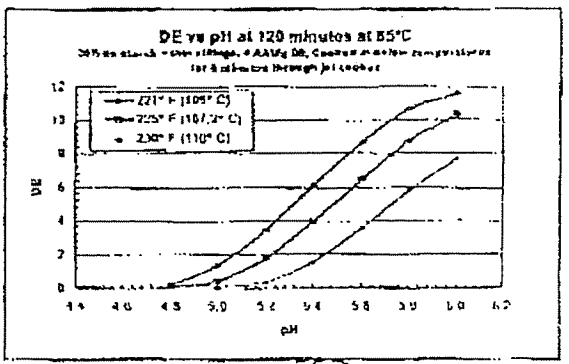
DOSAGE GUIDELINES

The optimal usage level of SPEZYME® ETHYL enzyme in liquefaction depends upon processing parameters such as type of raw material, viscosity, processing time, pH, temperature and DS (Dry Substance). A minimum SPEZYME® ETHYL enzyme starting dosage of 0.2 to 0.4 kg/MT DS (0.02 to 0.04% w/w) is recommended for wet milled starch and a starting dosage of 0.4 to 0.6 kg/MT DS (0.04 to 0.06% w/w) is recommended for dry milled corn mash under most conditions.

Properties of Liquefied Starch

SPEZYME® ETHYL reduces viscosity of grain mashes while producing soluble dextrins comparable to those produced by other high temperature α-amylases. SPEZYME® ETHYL performs equally well at low pH on mashes from different sources.

Effect of Temperature and pH on DE Development



Genencor International

EXHIBIT 3

SPEZYME® ETHYL AMINO ACID SEQUENCE

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  1 AAPFNGTMMQ YFEWYLPDDG TLWTKVANEA NNLSSLGITA LWLPPAYKGT SRSDVGYGVY
 61 DLYDLGEFNQ KGTVRTKYGT KAQYLQAIQA AHAAGMQVYA DVVFDHKGGA DGTEWVDAVE
121 VNPSDRNQEI SGTYQIQAWT KFDFPGRGNT YSSFKWRWYH FDGVDWDESR KLSRIYKFIG
181 KAWDWEVDTE NGNYDYLMYA DLDMDHPEVV TELKNWGKWY VNTTNIDGFR LDAVKHIKFS
241 FFPDWLSYVR SQTGKPLFTV GEYWSYDINK LHNYITKTNG TMSLFDAPLH NKFYTASKSG
301 GAFDMRTLMT NTLMKDQPTL AVTFVDNHDT EPGQALQSWV DPWFKPLAYA FILTRQEGYP
361 CVFYGDYYGI PQYNIPSLKS KIDPLLIARR DYAYGTQHDY LDHSDIIGWT REGVTEKPGS
421 GLAALITDGP GGSKWMYVGK QHAGKVFYDL TGNRSDTVTI NSDGWGEFKV NGGSVSVWVP
481 RKTT
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Exhibit 4